

We Claim:

1. A method for quantitating hTERT mRNA in a human sample, wherein said method comprises:

5 (a) contacting RNA from said sample with amplification reagents comprising a pair of primers, wherein said pair of primers consists of a first primer that is complementary or substantially complementary to one strand of the double-stranded hTERT gene sequence that is SEQ ID NO: 1 in a region that is either upstream of exon 7 or downstream of exon 8, and a second primer that is complementary or substantially
10 complementary to the other strand of said hTERT gene sequence in a region within exon 8;

(b) carrying out an amplification reaction;
(c) measuring the generation of amplification products; and
(d) determining the quantity of hTERT mRNA in said sample from the results
15 obtained in step (c).

2. A method of Claim 1, wherein said first primer is complementary or substantially complementary to said strand of said hTERT gene sequence in a region within exon 6.
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3. A method of Claim 1, wherein said amplification reaction is a polymerase chain reaction.

4. A method of Claim 3, wherein said first primer is SYC1076 (SEQ ID NO: 2) or SYC1118 (SEQ ID NO: 5) and said second primer is SYC1097 (SEQ ID NO: 4).
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5. A method of Claim 3, wherein said first primer is SYC1118 (SEQ ID NO: 5) and said second primer is SYC1097 (SEQ ID NO: 4).

6. A method of Claim 4, wherein step (c) is carried out using a probe that is complementary or substantially complementary to said amplification products.

7. A method of Claim 6, wherein said probe selected from the group consisting of CS12 (SEQ ID NO: 6), CS1 (SEQ ID NO: 7), and CS3 (SEQ ID NO: 8).

8. A method for quantitating telomerase activity in a human sample, wherein said method comprises:

- 10 (a) quantitating hTERT mRNA in said sample using the method of Claim 1;
and
(b) determining the telomerase activity in said sample from the result obtained in step (a).

9. A method for quantitating telomerase activity in a human sample, wherein said method comprises:

- 15 (a) quantitating hTERT mRNA in said sample using the method of Claim 2;
and
(b) determining the telomerase activity in said sample from the result obtained in step (a).

20 10. A method for quantitating telomerase activity in a human sample, wherein said method comprises:

- 25 (a) quantitating hTERT mRNA in said sample using the method of Claim 3;
and
(b) determining the telomerase activity in said sample from the result obtained in step (a).

11. A method for quantitating telomerase activity in a human sample, wherein said method comprises:

(a) quantitating hTERT mRNA in said sample using the method of Claim 4;
and

5 (b) determining the telomerase activity in said sample from the result obtained in step (a).

12. A method for quantitating telomerase activity in a human sample, wherein said method comprises:

10 (a) quantitating hTERT mRNA in said sample using the method of Claim 5;

and

(b) determining the telomerase activity in said sample from the result obtained in step (a).

13. A method for quantitating telomerase activity in a human sample, wherein said method comprises:

(a) quantitating hTERT mRNA in said sample using the method of Claim 6;
and

15 (b) determining the telomerase activity in said sample from the result obtained in step (a).

14. A method for quantitating telomerase activity in a human sample, wherein said method comprises:

20 (a) quantitating hTERT mRNA in said sample using the method of Claim 7;
and

(b) determining the telomerase activity in said sample from the result obtained in step (a).

15. A primer that is SYC1097 (SEQ ID NO: 4).

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16. A pair of primers for quantitating hTERT mRNA expression in a human sample, wherein said pair of primers consists of a first primer that is SYC1076 (SEQ ID NO: 2) or SYC1118 (SEQ ID NO: 5), and a second primer that is SYC1097 (SEQ ID NO: 4).

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17. A kit for quantitating hTERT mRNA in a human sample, comprising the primer of Claim 15.

10 18. A kit for quantitating hTERT mRNA in a human sample, comprising a pair of primers of Claim 16.

19. A kit of Claim 18, further comprising a probe selected from the group consisting of CS12 (SEQ ID NO: 6), CS1 (SEQ ID NO: 7), and CS3 (SEQ ID NO: 8).

15 20. A kit of claim 18, comprising a pair of primers that is SYC1118 (SEQ ID NO: 5) and SYC1097 (SEQ ID NO: 4), and comprising a probe that is CS12 (SEQ ID NO: 6).

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